

REMARKS

By this Amendment claim 3 has been amended to include the feature of claim 6, which has been canceled. Entry is requested.

In the outstanding Office Action the examiner has rejected claims 3-5 and 7 under 35 U.S.C. 103(a) as being unpatentable over JP 58-083420 in view of Cordova et al., Li et al. and Rothrock et al., and she has rejected claim 6 under 35 U.S.C. 103(a) as being unpatentable over these same references, further in view of Beretta.

The inventor asserts that this latter rejection is incorrect (the former rejection has been rendered moot).

JP 58-083420 discloses a safety helmet which includes an outer layer member 5 and an inner layer 6, the outer layer member 5 being formed by the joining of layers 1, 2, and 3, layer 1 being a strong layer made of glass cloth and cured epoxy resin, layer 2 being shock absorbing and made of three layers of non-woven fabric and cured epoxy resin, and layer 3 being a strong layer made of glass cloth and cured epoxy resin. As recognized by the examiner, there is no disclosure of a net member between any of the layers of non-woven fabric.

Cordova et al. disclose an armor system which includes a first pliable, cut-resistant fibrous layer and a second pliable, impact/ballistic energy-absorbing fibrous layer, the first layer including a plurality of uncoated non-woven networks of randomly oriented fibers or an uncoated knotted network of fibers, and the second layer including a plurality of

networks selected from a loosely woven network of fibers, an open network of fibers, a braided network of fibers and a non-woven network of oriented fibers. The layers of the system must be pliable (col. 11, lines 63-64), and they can be stitched together to maintain the pliability of the armor system (col. 13, lines 3-4).

Rothrock et al. disclose a protective helmet which includes wire mesh screens positioned inside of vents 18 in shell 14 to prevent foreign objects from entering the interior of the shell and interfering with fans 12 and for preventing entry of flames.

Li et al. disclose a ballistic-resistant composite article (bulletproof vests, helmets, etc.) made of one or more layers of a filament network.

Beretta et al. disclose a plastic material net structure for geotechnical applications which is resistant to breaking loads, propagation of breakages in the stretching direction, and flexure due to loads applied transversely to the stretch direction. The net structure includes holes 2 and nodes 4 between four holes, as well as regions 6 between the nodes 4 and which constitute "transverse portions."

The examiner asserts that (1) it would be obvious, based on Cordova et al., to use open knitted thermosetting or thermoplastic fibers between the first and second non-woven layers of the intermediate layer 2 of JP '420 to provide a helmet having increased strength and puncture resistance, (2) it would be obvious, based on Rothrock et al. and Li et al., to further use an almost 2 mm grid spacing and a filament diameter of

0.1 mm in the net material so used in JP '420, and (3) it would be obvious, based on Beretta et al., to use a net material in JP '420 having protrusions on both faces to provide a laminate of increased impact resistance.

The inventor asserts that this rejection is simply without merit. In this regard, the layer of an open knitted network of fibers in Cordova et al. (second layer) is only useful in conjunction with the first layer (plurality of networks), and thus it is not reasonable to assert that use of this particular layer in JP '420 would be obvious. And to assert that Rothrock et al. and Li et al. would "teach" use of their disclosed mesh grids and filament diameters in JP '420 is totally unsupported. And Beretta et al. provide a plastic material net structure which has breakage resistance in a stretch direction and flexure transversely to the stretch direction. These characteristics would not be obviously applicable to a helmet such as that shown in JP '420, and thus there would be no reason to conclude that use of regions 6 therein would somehow be applicable to any type of net that might be used in JP '420.

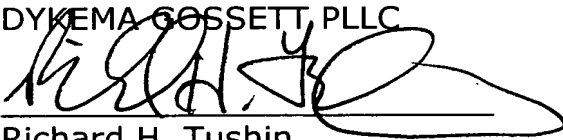
The examiner's combination of patent disclosures is clearly based on hindsight evaluation of the present application.

Favorable reevaluation of the claims is requested.

Respectfully submitted,

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By:

A handwritten signature in black ink, appearing to read 'Richard H. Tushin', is written over a horizontal line.

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